

What is claimed and desired to be secured by Letters Patent of the United States is:

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1. A method for switching AC power flow through, and deriving a supply of DC power from one side of an AC power circuit, comprising the steps of:
 - a) providing a gate-enabled thyristor for controlling switching of AC power flow through the circuit;
 - b) alternating enabling the thyristor into an ON state by providing a gate current pulse thereto when the instantaneous voltage across the thyristor exceeds a predetermined level, and disabling the thyristor in an OFF state by not providing a gate current pulse thereto; and
 - c) deriving a supply of DC power from said AC power flow which appears across the thyristor in each of said ON and OFF states thereof.

a) a thyristor having a first and second leads coupled between said source and said AC load, where in said thyristor is connected in said first lead so as to permit flow of AC current through said first lead in response to activation of said thyristor by a gate current pulse, said thyristor being configured to remain actuated after termination of said gate current pulse so long as a predetermined minimum current is flowing through said first lead;

c) power conversion means coupled between said first and second leads and effective for adapting a portion of said AC current at the beginning of each half cycle thereof into a source of DC current; and

d) control means powered by said DC current for selectively supplying said gate current pulses to said thyristor through the said driver.

3. The control apparatus of claim 2, wherein said control means comprises a programmed microcontroller.
4. The control apparatus of claim 2, wherein said power conversion means comprises means for diverting a portion of said AC current at the beginning of each cycle of said AC current and converting said portion of said AC current to said DC current.
5. An apparatus for selectively energizing an AC electrical load, comprising:
- a) a thyristor coupled between first and second AC current leads for controlling a flow of AC line current from said thyristor to said AC electrical load;
 - b) a microcontroller which is programmed to selectively provide enabling gate current pulses to said thyristor; and
 - c) a DC power supply coupled with said thyristor and effective to derive electrical power for said microcontroller from any portion of said AC current.

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6. An apparatus for selectively energizing an AC electrical load, comprising:

- a) a thyristor coupled between first and second AC current leads for controlling a flow of AC line current from said thyristor to said AC electrical load;
- b) a zero crossing detector for detecting zero crossings of a sinusoidal waveform of said AC line current;
- c) a microcontroller which is programmed to selectively provide a gate current pulse to said thyristor in response to detector detecting a zero crossing; and
- d) a DC power supply for providing power to said microcontroller.

7. An apparatus for selectively energizing a high-voltage AC electrical load, comprising:

- a) a switch housing mountable within the interior of dwelling;
- b) a switch mounted to said housing having an "off" position, an "on" position, and a "mode" position;
- c) means responsive to selection of said "off" position for interrupting flow of AC current to said load;
- d) means responsive to selection of said "on" position for completing a circuit as to provide continuous flow of current to said load; and
- e) means responsive to selection of said "mode" position for selectively completing and interrupting said circuit so as to permit flow of current through said leads, so that said AC electrical load is energized and de-

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energized in accordance with a predetermined sequence which is programmed into said microcontroller.

8. The apparatus of Claim 7, wherein said microcontroller is programmed to turn said AC load ON and OFF at long, random-time intervals.
- 5 9. The apparatus of Claim 7, wherein said microcontroller is programmed to turn said AC load ON and DIM at a periodic rate.
10. The apparatus of Claim 7, wherein said microcontroller is programmed to turn said AC load ON for a predetermined interval of time and then OFF thereafter.